

ADM CONGRESS

**SPEECH OF MANAGING DIRECTOR AND
CHIEF EXECUTIVE OFFICER STEVE LUDLAM**

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Introduction

Distinguished guests, ladies and gentlemen.

Thank you for the opportunity to share a few insights into our naval shipbuilding industry.

It is quite timely that we are meeting right now when there is considerable debate, not just on the future of our defence industry, but on the future of our entire manufacturing industry.

You would be forgiven for thinking that manufacturing in this country has no future given recent extensive media coverage around the automotive industry and the planned closures of the Ford, Holden and Toyota car factories.

But I sincerely believe that we have an extraordinary opportunity to re-shape Australia's manufacturing landscape.

I also firmly believe that Australia's defence industry can lead that charge.

Earlier this month I attended a major forum organised by CEDA to discuss the future of manufacturing in South Australia, post Holden. Goran Roos who is the Chair of the State's Advanced



Manufacturing Council said two things which I found to be highly relevant to where we are as a nation.

One was: “This is a crisis not to be wasted.”

The other was: “We need to be innovators, not improvisers.”

As a nation, we do face a cross roads – and we can either step aside or step up.

As a defence industry, we also have the choice of being innovators or improvisers. We can develop our own knowledge, our capability and our industry - or we can buy products off the shelf and adapt them to our needs.

That’s really the core of what I want to talk about today.

Firstly, I don’t think we are wasting this crisis...

Thousands of Australian companies have already proven themselves adept at re-skilling, re-tooling and re-designing their businesses to move from traditional manufacturing to a manufacturing base that is innovative, high-end and highly-skilled, and importantly many of them are involved in the defence industry.



We have before us the chance to set up an industrial base that will create jobs and provide for Australia's economic security and prosperity through to the end of this century and beyond.

The defence industry must position itself as the vanguard for the next generation of smart, advanced manufacturing that has the ability to skill and employ thousands upon thousands of Australians, and associated supply chains.

This is not high volume, production line manufacturing but highly-skilled, high accuracy, smart manufacturing that must be world-class to compete on a global scale.

That said, this means we must be innovators, not improvisers.

If we agree with this premise, we have a lot of work to do to prove that we have the expertise and the skills to take advanced manufacturing to a higher level in this country.

Our track record isn't great. Recent European Union data suggested that of all of Australia's exports, only 2.3 per cent could be considered high-tech. Compare this with countries like Denmark at 20.8 per cent and the US at 19.2 per cent.



Let's look at where we are now...

The Australian Government has clearly stated that Australia will continue to have a strong manufacturing future. It says we must embrace new industries, new markets and new jobs.

As the Prime Minister succinctly put it – Australia can still be a country that makes things. Industry Minister Ian Macfarlane says we have the ability to remake our manufacturing sector, and the time in which to do it.

I look at the people who are already highly skilled employees in the advanced manufacturing sector, and I see a group of Australians who are innovative and driven; who add value; who take great pride in what they do and what they can achieve; and who are up to any of the challenges placed before them.

I see it every day when I go to work at ASC, and I see it in the hundreds of suppliers who are lending their expertise to ASC's projects.

Every day we are lifting the bar on productivity.

I also think of the opportunities we – the defence industry in partnership with the Navy – have today to shape the future combat capability for the men and women who will protect Australia's interests in the years to come.



We can proudly count ourselves among only a handful of nations with the ability to produce our own submarines.

And we stand on the cusp of something even greater, with the opportunity to design and build, in Australia, a new multi-generational submarine that can still be in service 50 to 60 years from now and provide a 100 year future for the industry.

There is no doubt people have a great sense of pride, and count themselves extremely fortunate, to be part of what are projects of national significance.

Two weeks ago, ASC conducted a ceremony to mark the keel laying for Ship 2, the future destroyer *Brisbane*.

While the keel laying ceremony is an important tradition and milestone in the life of a shipbuilding project, what stood out for me was what this meant for our highly skilled and hard-working employees, and in particular our young apprentices.

One of the apprentices who took part in the ceremony was Courtney Bird. She is a third-year apprentice boilermaker. Not only that - but she is now proudly the fourth generation of shipbuilder in her family.

This really highlighted to me just how important it is that we as a nation can commit to a future, sustainable naval industry.



And just on that project...

The AWD project is a very complex project that has not been without its challenges.

The schedule for Ship 1 has been challenging due to a number of reasons including technical integrity and design issues; scope moving from earlier construction phases; and block subcontractor defects.

However, despite these significant challenges, ASC continues to effectively identify and manage these issues early, and manage the output of our subcontractors to progress work at pace.

Most importantly, lessons from Ship 1 are being learned and executed for ships 2 and 3.

We have implemented a suite of metrics based on the First Marine International (FMI) productivity benchmark.

And there is real evidence of improvement in these metrics with clear targets ahead.

Future submarine will be instrumental...

When I spoke at this very same ADM Congress in 2012 about the Future Submarine Program, I argued that we couldn't let the unique opportunity of building a new class of submarine pass.



I said then, and I repeat today, the future of Australia's defence industry can be well and truly assured by the Federal Government's promise to construct the next generation fleet of submarines in Australia.

The complexity of this task should not be underestimated. Building submarines is incredibly difficult. It is why Australia is one of only a handful of countries to have succeeded in producing an indigenous capability.

Many Australian companies have leveraged the expertise, knowledge and skills base they built up during the Collins project and have gone on to thrive in the defence industry.

These same companies are now working on the Hobart Class Air Warfare Destroyer project, the Canberra Class Landing Helicopter Docks, and they're involved in the sustainment of our existing warships and submarines including, of course, the Collins class submarines.

I'm heartened by comments by former Industry Minister Greg Combet, who is now heading South Australia's Government-led industry taskforce.



He said just this month that new submarines were a hugely important project that could transform Australia's manufacturing.

Unfortunately the poor standard of debate and commentary in some quarters still fails to support this direction.

We continue to see so-called 'expert commentators' making ill-informed contributions to the debate on our future submarine capability and talking down the idea.

Most of those opinions ignore research and analysis and the harsh reality of the global skills race, and instead continue to focus on how Australia should just look for the 'best deal' on an off-the-shelf submarine from another country – improvise rather than innovate.

I think some of these commentators should take any opportunity available to meet our talented engineers and workers, some of them recent graduates, and some who are already working on how to design and build our future submarines.

They are highly skilled and very passionate about what they do and recognise the incredible opportunity with which they have been tasked.



And more importantly they see this as something that could more than likely sustain their entire career in the naval industry – while contributing to Australia’s sustainable position as a global leader in specialist engineering and smart manufacturing.

That’s where we in this room – the industry leaders, the decision makers and the ultimate end users - come in.

We have a once in a generation opportunity to make a difference – or not...

We can take the risk-reduced, most likely cheaper, off-the-shelf overseas model approach to sustaining our capability. In the case of our submarine fleet that would mean a boat that might not have the range or capabilities that we would like, but it’ll do.

In our vernacular, it’s the ‘she’ll be right’ approach. In retail terms – “just add water”. In the words of Goran Roos – “improvise rather than innovate”.

It’s a short term solution without long-term benefits.

Just as importantly though, the skills base, technical proficiencies and build capabilities we’ve developed,



particularly over the past 25 years of ship building, will simply wither away.

And once we lose the people with the hard-won skills able to undertake this work to other industries or overseas career paths, it will be extraordinarily hard to recover that capability.

For this reason, as industry we must also work together and collectively compete for interim projects, such as SEA 1654 – the combat support ships.

This is exactly what ASC is proposing for this project. Our Aegir 18A proposal would see work allocated to shipyards across Australia.

This is a significant opportunity that gives industry the opportunity to progress skills development and increase productivity.

It will require us to be innovative in order that we can be successful during the competitive process.

But most importantly, we must work together.

So where do we go from here?

ASC has looked beyond the current debate, beyond the life cycle of the Collins Class submarines and the launch of the Air



Warfare Destroyers, and even beyond what future submarine means for our industry.

Late last year we published a paper that examined what is required to create a sustainable industry that delivers an enduring capability to the Navy.

By enduring, I mean the Australian Naval industry must be able to continuously deliver and sustain capable warships - not for 20 years, not for the next 50 years, but for the next 100 years.

Australia is one of very few nations which have the ability to develop a naval industry that approaches or exceeds international benchmarks for efficiency and performance.

I stress that this advanced industrial capability would be available without additional cost, should the Government implement policies that enable higher industry performance.

Out of this paper, we have proposed five key recommendations, and I'll get to those shortly.



But I'd just like to quickly outline the reasons behind producing this paper...

The 2013 Defence White Paper clearly expressed the Government's wish that we have a highly skilled and capable Australian defence industry to achieve its strategic objectives.

It says Defence will continue to strengthen its relationship with Australian industry through collaborative partnerships that empower industry to assume a leadership role.

We see this call for industry leadership as a crucial component of the overall debate.

ASC recognises that as a major industry player, we need to contribute to the research effort and provide thought leadership.

In that respect we need to clearly articulate where we see the naval shipbuilding industry heading, and the benefits to be derived from a sustainable industry.

ASC believes its unique status as an Australian-owned, prime defence contractor enables us to have a discussion free of the constraints of managing competing interests between Australian and international customers.



So, to our recommendations...

Out of our research and analysis into a sustainable Australian naval industry, we have proposed key recommendations that we believe will provide significant benefits - and that will ultimately deliver greater military and industrial self-reliance, jobs growth, and development of human capital, innovation and economic growth.

Our proposed recommendations are to:

1. Implement rolling ship and submarine building programs to sustain industry throughput;
2. Build a capable in-country naval 'value chain' built on domestic and international sources of supply;
3. Implement best commercial practice across the value chain for greater productivity;
4. Increase in-country capability in submarine and ship integration to include warship design; and
5. Establish, maintain and execute a strategic science and technology program.

Our paper is available to download on our website, but I want to spend a bit of time this morning running through some of the key recommendations I just mentioned.



Let's examine the issue of sustaining industry throughput...

I've already talked about the 100-year time scale we need to be considering when planning our future capability.

We're all very familiar with the boom-bust cyclical nature of major defence procurement programs or the 'Valley of Death' as it is often referred, assuming an Australian-led capability solution is adopted.

History does not provide a flattering benchmark. Previous lapses of investment in our capability have occurred between the Charles F Adam Class and Hobart Class Air Warfare Destroyers, and between the Oberon Class and Collins Class submarines.

To avoid unwanted project delays, risks and costs leading to capability gaps, projects for Navy's fleets of ships must be considered over a multi-generational time period – again I reiterate we're talking about a 100 year perspective.

Both the 2013 Defence White Paper and the Future Submarine industry skills plan have acknowledged a clear relationship between stable future demand and the progress of industry capability.



Our ongoing need for major warships and submarines should be sufficient for a reasonably stable demand on Australian industry.

Australia's naval requirements may not be sufficient to be able to implement a continuous build strategy for one class of vessel. However, our own experience suggests up to 80 per cent of skills are interchangeable, between the building of warships and submarines.

Value chain

I'd like to now focus on how we can build a strong in-country naval 'value chain'. This is - in its simplest terms - who does what, and how all of the entities work together in a way that ensures each activity has a single owner, and so there are no overlaps or gaps in accountability.

John Coles applied this value chain model to the end-to-end business of sustaining the Collins Class submarines. He found a lack of clarity in organisational roles, responsibilities and accountabilities across the entire enterprise.

We've learned a considerable amount from this process, and the changes to the Collins sustainment value chain are now delivering positive results for Navy, the DMO and ASC, with



better strategic planning and more responsibility for outcomes placed on those most able to accept it.

These lessons learned serve to demonstrate how the value chain model can be applied to all naval programs, through the construction and delivery phase through to sustainment, and even disposal.

What we also need to consider within the value chain is the way we do business with our international defence partners.

As good as we can be as a nation in designing, building and sustaining a modern warship or submarine, a proportion of the componentry and services will be carried out by companies operating outside of Australia.

The decision on when to source from offshore markets must be driven by sovereign, technical and commercial risk, sustainment of minimum demand and overall value for money.

The Ship Integrator must take decisions that meet clear program and industry goals. The varying levels of Australian and off-shore supply are actually a healthy feature of this process.

An internationally competitive skills base

If we distil all of the discussions, debates and research into a sustainable Australian naval industry, I believe we end up with two core arguments.

The first is clearly the reason why we have such a capable and effective naval force.

As an island nation, and indeed continent, our security and prosperity is vested in a Navy that can fight and win at sea.

As outlined in the Department of Defence's Force 2020 paper back in 2002, we need submarines and warships that are technically superior to potential adversaries to ensure the capacity of maritime trade, protect our sovereign interests and support our allies.

We don't pretend to have sufficient demand to justify designing all of the classes of ship that our Navy requires. However we can and do concentrate on our ability to meet demand for specific vessels such as frigates, destroyers and submarines.

None of this is possible without a highly skilled, highly knowledgeable workforce, which brings me to the second core reason for a sustainable industry.



We must continue to build and maintain an internationally competitive skills base.

Nurturing and developing what we may term 'human capital' starts with our young school students, continues through tertiary education and into on-the-job training.

Today's 10-year-olds could expect to work on the project at some point, perhaps make a long-term career out of it, as long as they make the right subject choices and receive the right education throughout their teenage years.

You might also consider that apprentices working on our AWDs now, will be in a position to supervise and mentor today's 10-year-olds in another decade or more.

None of us should ever stop learning, and the defence industry provides a continuous set of opportunities and challenges to ensure this learning process continues.

ASC has forged strong relationships with several schools, particularly around Adelaide, that specialise in equipping their students with the technical capabilities to seek a career in industries such as naval shipbuilding.



In fact, I was reminded by the Principal of St Patrick's Technical College that of the 23 new apprentices becoming part of the ASC team in 2014, five came from this college.

St Patrick's is based in Edinburgh North, just a short distance from our Osborne facilities, and is a prime example of the integration possible between the education system and the workforce.

Our universities are turning out engineering graduates who have a once-in-a-generation opportunity to be part of the development of a key defence capability from incubation through to sustainment.

The defence industry of course plays a crucial role in the further up-skilling of these people once they leave college or university.

As an industry we have been able to accumulate a wide body of knowledge through focussed learning programs and to provide real work on which to practise new skills.

Industry leaders have also helped to establish tertiary learning programs such as the Engineering Masters Programme, and three post graduate programs in Military Systems Integration, System Support Solutions and Marine Engineering.



The Maritime Skills Centre in Adelaide is up-skilling the workforce in the naval industry.

In essence, we're acting as industrial technical universities. And it's our own experienced personnel who are playing an active role in up-skilling our workforce to levels of competencies and disciplines not supported by mainstream education institutions.

A viable and sustainable local industry grows the human capital necessary in increasingly sophisticated projects.

Other industry leaders in other countries are without doubt undertaking similar programs. Building this corporate knowledge is only possible for as long as we have a sustainable industry that allows us to employ a large workforce that can in turn receive further training as a natural step in their career progression.

If this doesn't happen, we will get left behind in terms of military capability, and in terms of our knowledge base.

So in closing...

Why is this all so important? What are the key benefits of a sustainable naval industry?

First – the Navy’s ability to fight and win is increased. This applies at all times, but particularly when a rapid and local response is required for emergency repairs and for modifications, upgrades and preparations for war.

Second – sovereign independence can be realised through sustained and planned investment in the local economy. It gives us the freedom to use the most appropriate military capabilities, and we are less dependent on foreign companies and governments.

Third – innovation improves military capability at the leading edge. This continuous innovation becomes embedded in the technologies, materials, engineering, manufacturing and management tools and methods, and these progressively spill over to other sectors of our national economy.

Fourth – human capital includes suitably qualified and experienced personnel, without which large projects cannot be accomplished. The long term nature of major naval projects



drives this need, but any break in this chain severely limits our ability to pick up where we left off at a later date.

Finally – the Australian economy grows from naval industry investment. It is an advanced manufacturing, high value-add sector that fuels our nation’s growth. The significance of this cannot be over-estimated.

It’s the difference between innovating and improvising.